

March 18, 2008

With increased beach monitoring since the passage of the US EPA (Environmental Protection Agency) BEACH (Beaches Environmental Assessment and Coastal Health) Act there have been new and unanswered questions arising from the data that has resulted from these efforts. The most common questions relate to the source of the microbial contamination at individual beaches. To begin to answer some of these questions the US EPA provided funding during 2007 to investigate the source of microbial contamination at selected swimming beaches. This presentation will discuss the use of the US EPA's Sanitary Survey program to help identify sources of fecal pollution at several beaches along Lake Superior and Lake Michigan. A variety of techniques for identifying fecal pollution will be discussed including spatial sampling, rain event sampling, beach sand evaluations, avian waste evaluations, land-use, and genetic fingerprinting of indicator organisms will be discussed. The successes of these various techniques, as well as the limitation of several techniques will be presented. The use of the these sanitary survey data sets in conjunction with historical data is essential if microbial contamination is to mitigated, and beaches are to be designed in such a way as to minimize contamination and maximize protection of the public using these waters. The use of sustainable engineering approaches, aimed at decreasing microbial pollution and protecting human health, will be discussed for several beach locations.

Notes:

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.